

FIG. 1 is a block diagram of a computer system 100 according to one embodiment of the present invention. The computer system 100 includes a CPU 105, a memory 120, and a bus 130. The memory 120 includes a main memory 12 and a cache memory 14. The computer system 100 also includes input/output devices 140, 142, 150, a storage device 110, a removable media device 160, and a network device 170. The removable media device 160 is connected to a storage device 110 and a network device 170. The network device 170 is connected to a network 200, which is the Internet. The computer system 100 is also connected to a network 100a, which includes a router 100b and a switch 100c.

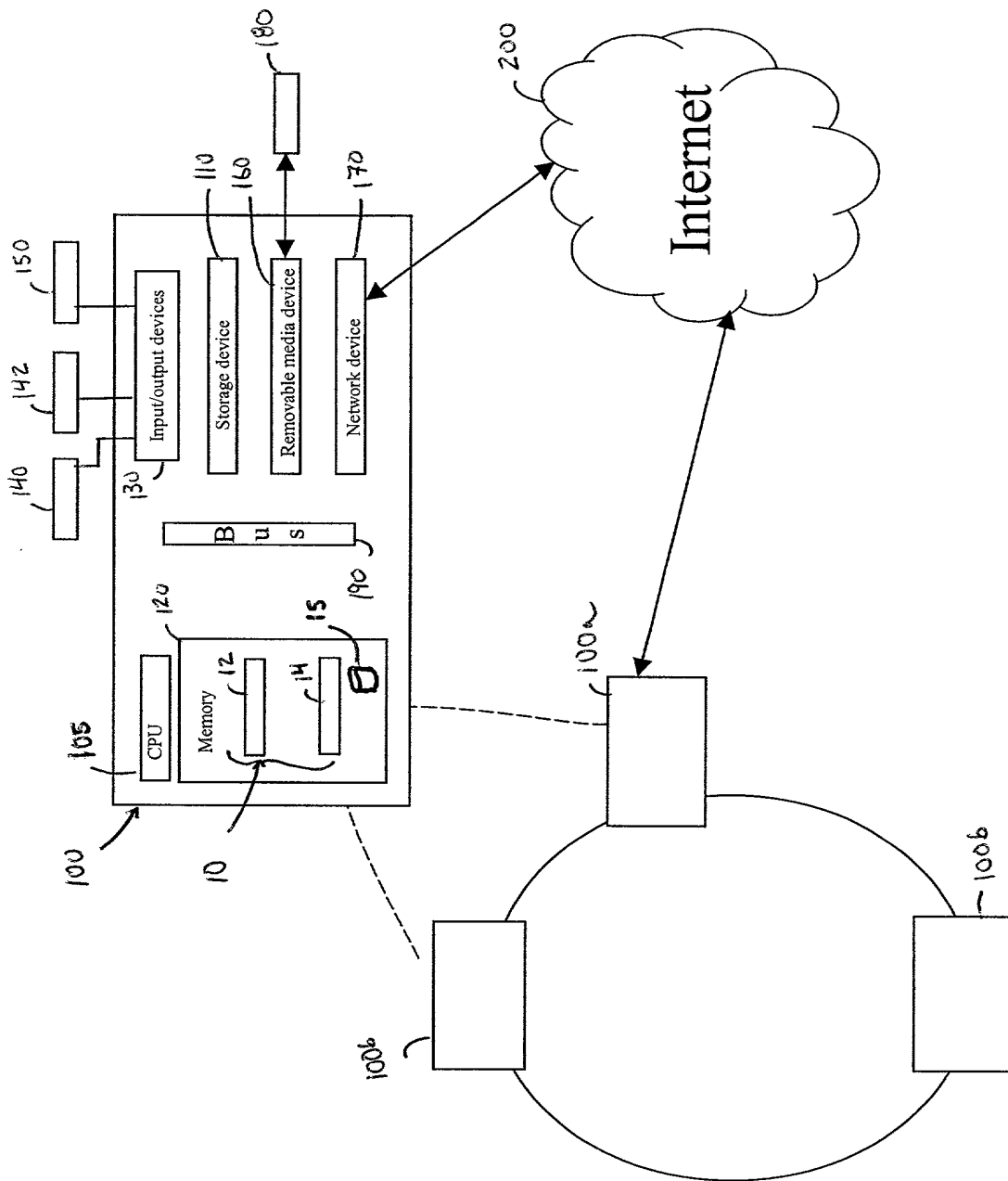


FIG. 1

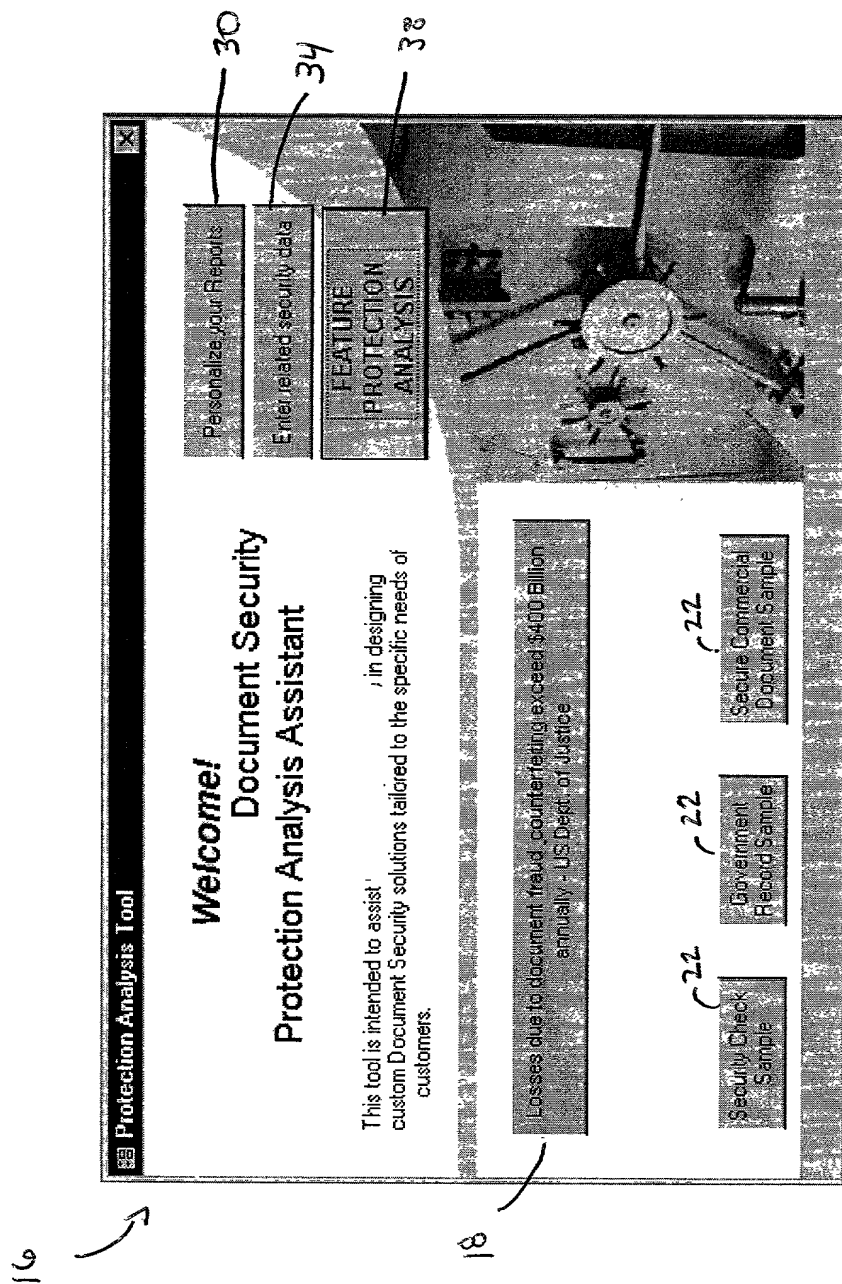


FIG. 2

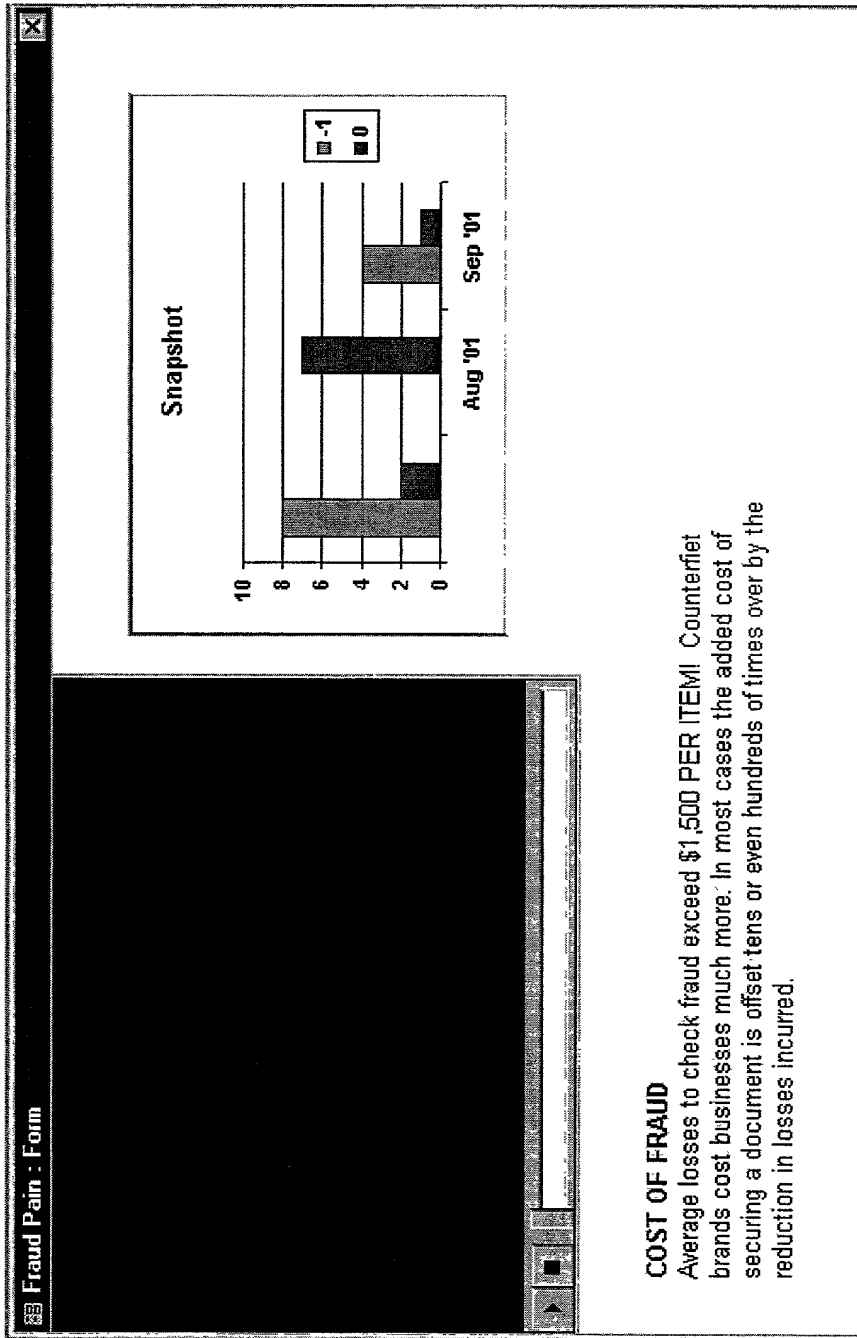
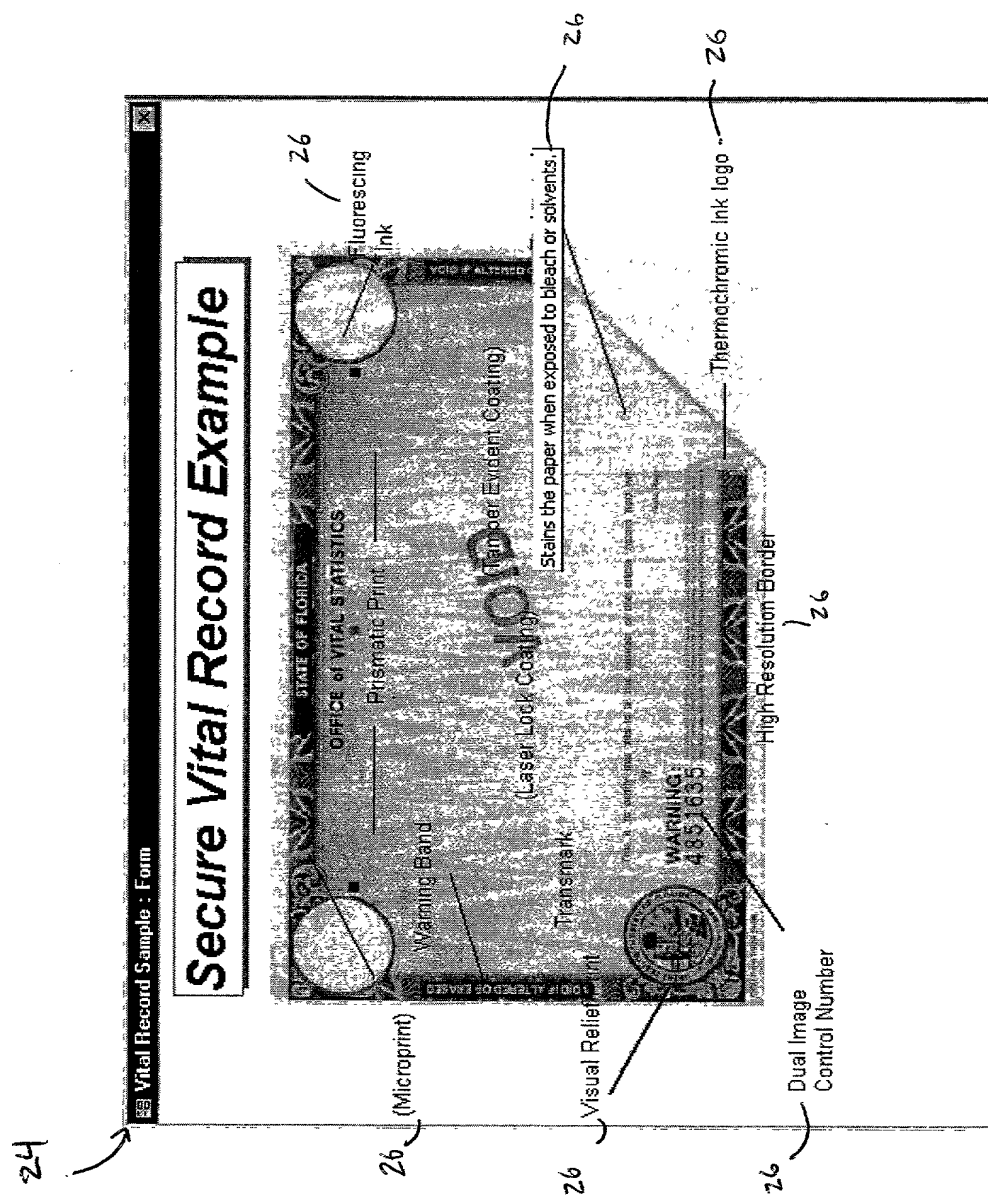


Fig. 3



28

Document Security

Technologies & Feature Descriptions

Thermochromic Ink ²⁶ Description



Ink that changes color or disappears when warmed and returns back to the original color upon cooling.

29

Alias:
Wood Ink

Benefits:
This feature provides a good level of protection against copy and counterfeit and can be easily authenticated in the field without special equipment.

Limitations:
Limited light sensitivity if exposed to direct sunlight or excessive fluorescent office lighting.
Susceptible to some solvents and abrasion.

Notes/Considerations:
Laser heads have no permanent impact upon feature performance.

Total life expectancy has not yet been established, but infrequently handled documents under limited exposure to ambient light are anticipated to function in excess of seven years.

Thermochromic ink should be printed over plain paper backgrounds, not other colors.

Additional colors and temperature ranges are available.

Additional information can be found in Enthusiast's Technical Bulletin T-B-00354 on the KnowledgeWeb.

How to Order:

Thermochromic ink can be ordered through the home plant.

29

Security Feature Technologies & Descriptions

C.S. 7/12/90

04/04/2001

Fig. 5

32

Customization Entry

Technology & Commercial

Company Name

Primary Contact

Presentation Description

SAC Representative

SAC Address 1

SAC Address 2

City, State, Zip

Phone

Additional Phone

E-mail

33

Fig. 6.

Fig. 82

49

51

53

Pantograph Selection : Form

A pantograph is a screened background pattern on the face of the document. Only one pantograph may be selected at a time. Void Pantographs like Copyban and Super Safety are special patterns with hidden "VOID" messages that become visible when copied.

☒ **Copyban Capture**
The best copy protection available in a VOID pantograph. Copyban Capture's gradient (dark to light) screens thwart attempts to adjust color copiers to inhibit the appearance of the VOID word...

☐ **Copyban Plus**
Another patented Standard Register technology...

☐ **Super Safety (Void)**
Super Safety (often referred to as "Void" Pantograph) is one of Standard Register's first patented security technologies...

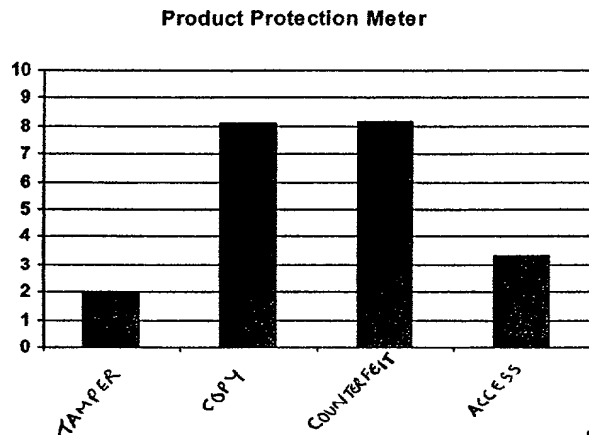
☐ **Standard Pantograph**
Standard pantographs do not include a hidden "Void" message and offer no significant protection against color copies...

☐ **None of the Above**
No pantograph is desired

Fig. 8b

Protection and Authentication Assessment

Rating the levels of protection and authentication selected against a scale of 1 to 10, where 1 = None and 10 = Excellent, results in the following scores:



56

2 Tamper Protection:

Poor

Tamper Protection describes the relative ability of this item to warn the examiner that the information present has been altered.

8.08 Copy Protection:

58

Good

Copy Protection describes the relative ability of this item to warn the examiner that the entire document has been copied or replicated.

8.18 Counterfeit Protection:

Good

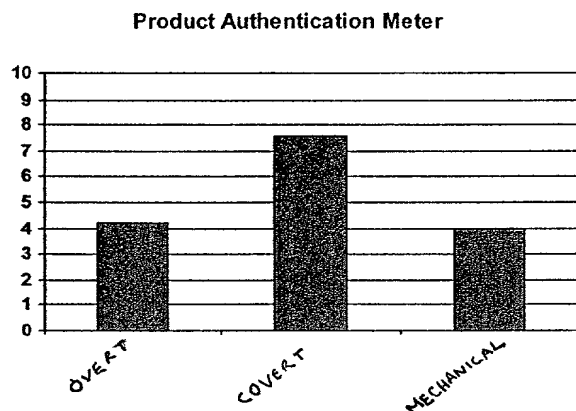
Counterfeit Protection describes the relative ability of this item to warn the examiner that the entire document is fake.

3.33 Access Protection:

Minimal

Access Protection describes the relative difficulty in accessing the item with the intent of producing a fraudulent original.

60



56

4.24 Overt Authentication:

Minimal

Overt Authentication describes the relative ease with which a reasonably observant examiner could validate the Authenticity of the item without special equipment or knowledge.

7.58 Covert Authentication:

58

Good

Covert Authentication describes the relative difficulty of a forger identifying and either reproducing or disabling a hidden security device on the document.

4 Mechanical Authentication:

Minimal

Mechanical Authentication describes the relative ability to authenticate an item mechanically in an automated system.

60

These are the Security products selected for this review

Artificial Watermark	Imagery printed on the document in white or transparent non-penetrating ink which is visible when viewed at an angle. May optionally fluoresce green under black light.
Consecutive Number	A sequential control or reference ID number printed on the document to aid in determining when & where it was issued
Defaced Voucher	Background printing across otherwise blank areas of the document intended to prohibit use of the voucher to create a counterfeit.
Dual Image Numbering	A consecutive number printed in two colors, one of which penetrates into the paper and is visible on the back of the sheet.
Fluorescent Ink	Images and words printed on the document that are difficult to see unless exposed under a black light.
Hidden Message Border	A word or phrase hidden within a High Resolution border and requiring a special lens to authenticate.
High Resolution Border	Intricate line patterns that emulate Intaglio printing. These borders enhance the appearance of a document and make replication difficult.
Microdots	A series of small circles of differing dot sizes that are very difficult to reproduce.
Microprint	A line of very fine text that appears as a solid or dashed line until viewed under magnification.
Pantograph (CB Capture)	Darker and lighter gradually changing tones that provide excellent color copy protection against the full range of copier settings. The word "VOID" appears on most color copies made.
Satellite Image	A covert image hidden in the Copyban Capture pantograph that requires a special lens to view on the original document but becomes visible on a color copy.

68



Relative Cost Impact Summary

The relative impact of these combined security features upon your overall product cost is estimated to be Minor ← 72

A numbering machine is necessary.

A numbering machine is necessary. Specialty Ink.

A special authentication lens is necessary. Custom Image.

A special authentication lens is necessary. Custom text.

An additional print station is necessary for spot or custom. Economy can be improved by selecting this feature as part of a safety paper.

An additional print station is necessary for spot or custom. Specialty Ink. Economy can be improved by selecting this feature as part of a safety paper.

Consecutive Number

Dual Image Numbering

Satellite Image

Hidden Message Border

Artificial Watermark

Fluorescent Ink

26

FIG. 11